

National Institute on Aging

- ◆ Congress authorized the establishment of the National Institute on Aging (NIA) with the 1974 Research on Aging Act and through subsequent amendments to the Public Health Service Act (sections 443–445F). The NIA, one of the 13 institutes of the National Institutes of Health (NIH), is responsible for the “conduct and support of biomedical, social, and behavioral research, training, health information dissemination, and other programs with respect to the aging process and the diseases and other special problems and needs of the aged.” Congress continues to encourage a wide range of research in aging, including studies on reducing or preventing frailty and injuries and on the safety and efficacy of drugs to treat Alzheimer’s disease.

To carry out its mission, the NIA engages in collaborative activities with other NIH institutes and Federal agencies. Where appropriate, research is conducted through interventions and clinical trials.

- ◆ The NIA is organized into two intramural and four extramural programs. The extramural programs fund research and training at universities, hospitals, medical centers, and other public and private organizations and institutions. Several NIA programs are aimed specifically at encouraging minorities to participate in aging research.
- ◆ The NIA conducts laboratory and clinical research at its intramural **Gerontology Research Center (GRC)**, located on the grounds of the Francis Scott Key Medical Center in Baltimore, MD, and at the NIH Warren G. Magnuson Clinical Center in Bethesda, MD. Much of the research at the GRC involves studies on the basic mechanisms of

aging processes with increasing attention to molecular genetics. The GRC's Baltimore Longitudinal Study of Aging was initiated in 1958 and involves approximately 1,100 male and female volunteers. It is helping scientists learn what happens as people age and how to differentiate between changes that are due primarily to aging and those that are attributable to disease or environmental influences. Scientists at the Laboratory of Neurosciences are investigating the brain and nervous system changes that take place during development and aging in both animals and humans. The basic research program is coordinated with clinical studies of the dementias, particularly Alzheimer's disease.

- ◆ The intramural **Epidemiology, Demography, and Biometry Program** conducts and supports research in the epidemiology of health and disease and the

demographic, social, and economic factors affecting the health of older people. Staff collect and analyze information on older people from sources including established community populations, the Bureau of the Census, the National Center for Health Statistics, and other public agencies.

- ◆ The extramural **Behavioral and Social Research Program** supports social and behavioral research and training on aging processes and the place of older people in society. It focuses on the relationship of older people with their environment, family, and other social groups. The program emphasizes demographic research and studies of healthy and productive functioning in the middle and later years, including work, health, and family responsibilities of men and women approaching retirement.
- ◆ The **Biology of Aging Program** supports research that focuses on

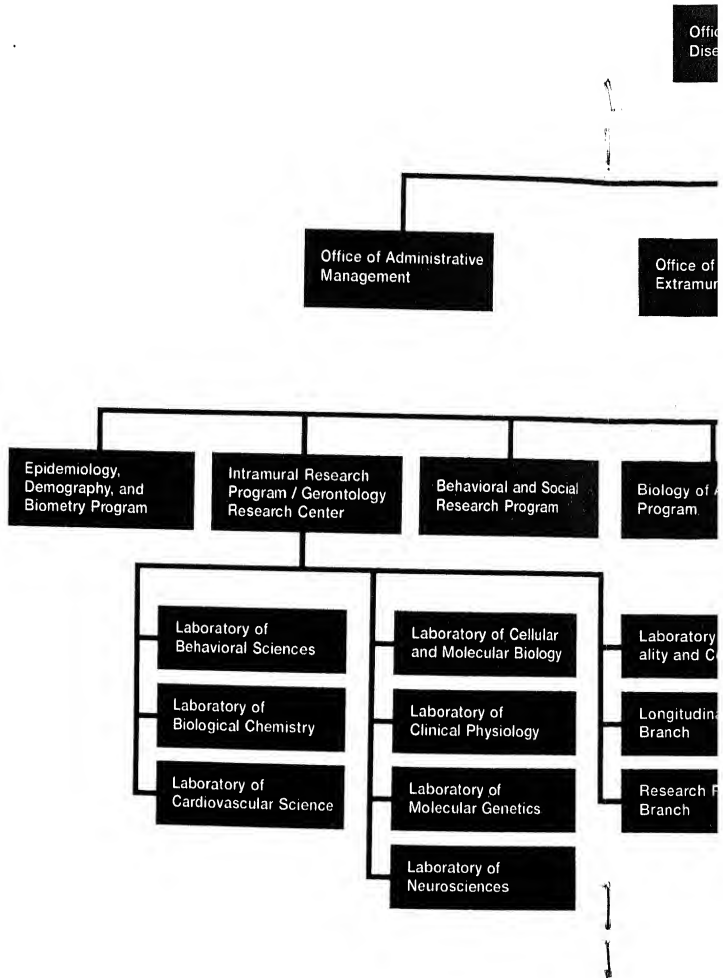
basic mechanisms involved in aging processes and the onset of age-related disease. It funds research and training on molecular and cell biology, genetics, immunology, endocrinology, and nutrition. The program also supports facilities that provide investigators with aging animals and cell cultures for use in aging research projects.

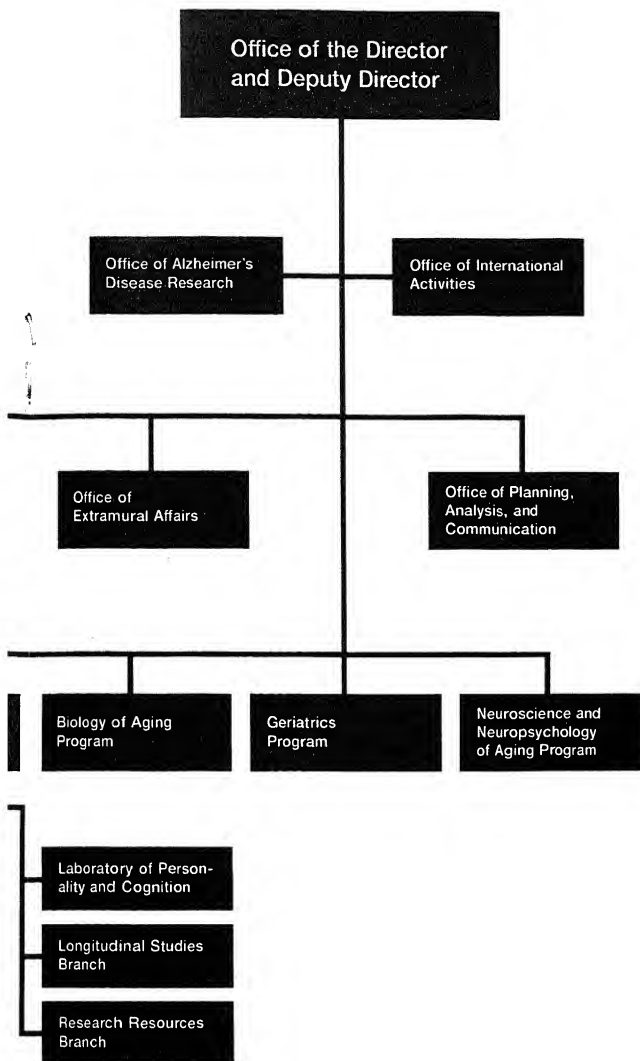
- ◆ The **Geriatrics Program** supports research on diseases of older persons. It is responsible for funding and supporting research on physical frailty, pharmacology, rehabilitation, osteoporosis, geriatric assessment, and geriatric training, including the Claude D. Pepper Geriatric Research and Training Centers and the Claude D. Pepper Older Americans Independence Centers.
- ◆ The **Neuroscience and Neuropsychology of Aging Program** supports research on the structure

and function of the aging nervous system and the behavioral manifestations of the aging brain. Research areas include age-related changes in the nervous system, especially as they affect sensory processes, learning, memory, and sleep. The study of Alzheimer's disease and other disorders associated with the aging nervous system, including the causes, diagnosis, epidemiology, treatment, and management of such disorders, are of special interest. Much of this research is carried out through the program's Alzheimer's Disease Research Centers.

- ◆ The **Office of Alzheimer's Disease Research** coordinates Alzheimer's disease research for the NIH.
- ◆ The **Public Information Office** plans and carries out a legislatively mandated information and education program for the general public, mass media, physicians and health care workers, other government agencies, and service organizations. The information office also oversees the Alzheimer's Disease Education and Referral Center (ADEAR).

NIA Organization Chart





NIA Priorities

Alzheimer's Disease

Alzheimer's disease is a progressive disorder characterized by degenerative brain disease that destroys the cognitive functioning of the patient. It is estimated that about 4 million people in the United States have some form of dementia, costing the nation over \$88 billion annually. NIA-supported studies on Alzheimer's disease include conducting clinical trials and research on basic mechanisms related to the cause(s), improved diagnostic criteria and methods, treatment, management of symptoms, epidemiological studies, and psychosocial factors associated with caregiving.

Understanding Aging

One goal of NIA research is to determine the genetic and environmental bases for differences in

aging. Scientists are isolating and identifying genes responsible for age-related changes and for the onset of age-related diseases. Other areas of particular interest are the modifications of proteins, control of cell proliferation, biomarkers of aging, relationships between aging and disease, effect of aging on the immune response, aging changes related to nutrition and exercise, plasticity of the aging nervous system, and neuropsychology and cognitive psychology of aging.

Frailty, Disability, and Rehabilitation

NIA also supports studies on cardiovascular diseases as well as muscular, perceptual, and neurological aspects of falls and gait disorders.

Hip fractures in frail older people are a major cause of mortality, morbidity, and health expenditures in this country. The Institute supports studies on rehabilitation

and sponsors clinical trials to identify interventions that will reduce problems of balance and physical frailty, which often result in falls.

Health and Effective Functioning

Research supported by NIA emphasizes strategies for maintaining health and independence, improving quality of life, and preventing or postponing disabilities in older people.

Nutrition plays an important role in the good health of older people. Research is being conducted on dietary deficiencies associated with depressed immunocompetence, depressed cognitive function, deteriorated senses of taste and smell, overt metabolic disease, and changes in eating patterns as people age.

Research in exercise physiology is designed to assess the effects of both short- and long-term physi-

cal activity on the promotion of health and on the prevention of premature physical decline and disease in older people.

Long-Term Care for Older People

NIA supports research on preventing the need for long-term care or institutionalization, enhancing the quality and efficiency of such care, easing the burden of family care, and forecasting the requirements for long-term care.

Special Older Populations

Continued progress is needed to improve the health and longevity of ethnic and racial minority populations. NIA supports research on life expectancy, health status, environmental influences, family structure, social networks, and interventions targeted to minorities. The Institute supports research on the socioeconomic and demographic characteristics of older people (especially

those age 85 and over), minorities, older adults who are mentally retarded, rural populations, and gender differences in health and length of life. NIA has a particular interest in supporting research concerning the health and well-being of older women and among its research activities has launched the Women's Aging Study, a 5-year intramural study investigating the causes and course of disability in older women.

Training and Career Development

NIA supports a variety of training opportunities to help individuals prepare for or advance their careers in research and teaching in geriatrics and the social science fields. This includes the Claude D. Pepper Geriatric Research and Training Centers which train future academic leaders in geriatric medicine.

International Activities

Because unique research opportunities are afforded by investigations of the health of different racial and ethnic populations, the NIA engages in cross-national comparative studies involving diverse populations. Scientific exchanges and conferences on aging occur under a variety of international agreements. Scientists working in NIA intramural research programs host foreign investigators under the NIH Visiting Program. NIA also funds grants to both foreign and domestic researchers through its extramural program.

A cooperative program with the World Health Organization, the Research Program on Aging, is located at NIA. This is a comprehensive, multinational program that focuses on dementia, determinants of healthy aging, immunology, and nutritional aspects of osteoporosis.

Health Information Dissemination

Research reports and information on all aspects of aging are communicated to the many constituencies interested in aging. NIA informs and motivates the public through health communication materials and presentations. Special media presentations and events increase public awareness of specific health issues, reinforce certain knowledge or behavior, and encourage action.

For additional information about NIA programs and research, contact the Public Information Office, National Institute on Aging, Federal Building, Room 6C12, Bethesda, MD 20892; telephone (301) 496-1752.

For information on Alzheimer's disease, contact ADEAR, 8737 Colesville Road, Suite 304, Silver Spring, MD 20910; telephone (301) 495-3311.

February 1991

